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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,094	04/14/2004	Raymond H. Thomas	H0004811-4520	6156

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EXAMINER

CARRILLO, BIBI SHARIDAN

ART UNIT PAPER NUMBER

1746

DATE MAILED: 08/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/824,094	Applicant(s) THOMAS ET AL.	
	Examiner Sharidan Carrillo	Art Unit 1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2005.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
 4a) Of the above claim(s) 21-25 is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-20, 25 and 26 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☒ Claim(s) 1-27 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/20/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 7-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 is indefinite because it is unclear how one can stop step f while continuing steps b, d, d, and h since step f requires carrying out steps a-e. Claim 9 is indefinite because it is unclear how the purging step can be carried out prior to step (i) if the purging is removed in step ©. Specifically, how can the purging occur before the step of cleaning the component.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-14, 16-19, and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weidman et al. (6162304) in view of Van Steenburgh Jr. (5195333).

In reference to claims 1 and 12, Weidman teaches cleaning air-conditioning components by purging with HFC. Weidman teaches cleaning systems by purging with HFC, which have also been used as refrigerants. Weidman fails to teach recovery or recycle of refrigerants. Van Steenburgh, Jr. teaches a process for recovery and recycle of refrigerants for purposes of reuse. In col. 5, lines 1-55, Van Steenburgh Jr teaches evaporation, compression and condensation for purifying the refrigerant for reuse. It would have been obvious and well within the level of the skilled artisan to purify the refrigerant, as taught by Van Steenburgh, Jr. for purposes of reusing and reclaiming the refrigerant.

In reference to claims 2-4 and 18, the boiling point is a chemical property of the

composition. Since Weidman teaches the same composition as the instantly claimed invention, one would reasonably expect the composition of Weidman to possess similar boiling point ranges.

In reference to claim 5, refer to col. 3, lines 50-60 of Weidman. In reference to claim 6, refer to col. 6, lines 20-25 and Fig. 1 of Van Steenburgh. In reference to claim 7, the limitations are met in view of the indefiniteness. Additionally, Weidman teaches cleaning the components, followed by the removal of the cleaning composition. It would have been well within the level of the skilled artisan to clean the component, followed by the removal and purification of the cleaning solvent prior to reuse in order to reduce the level of contamination and further prevent recontamination of the cleaned component. In reference to claims 8-9 and in view of the indefiniteness, the limitations are met by Van Steenburgh. Additionally, Van Steenburgh teaches an oil separator to remove contaminants. In reference to claims 10-11, and 25-26 refer to col. 3, lines 50-60 of Weidman. In reference to claims 12-13, refer to col. 5, lines 1-60 of Van Steenburgh. In reference to claim 14, Van Steenburgh teaches pressure from the compressor for withdrawal of refrigerant. In reference to claim 16, refer to col. 3, lines 50-58 of Weidman. In reference to claim 17, refer to col. 4, lines 3-23, and 65-68 of Van Steenburgh. In reference to claim 19, refer to col. 2, lines 15-20 of Weidman.

6. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Weidman et al. (6162304) in view of Van Steenburgh Jr. (5195333), as applied to claims 1-14 and 16-19 and 25-26 as described in paragraph 5 above, and further in view of Spauschus et al. (5887441).

Weidman et al. in view of Van Steenburgh fails teach directing solvent through the expansion valve and evaporator. Van Steenburgh teaches directing solvent from the expansion valve to an evaporator for purposes of vaporizing the liquid into a gaseous phase. It would have been obvious to a person of ordinary skill in the art to have modified the method of Weidman to include an expansion valve, as taught by Spauschus, for purposes of vaporizing the liquid into a gaseous phase. Additionally, expansion valves are conventional parts used in the refrigeration system.

7. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Weidman et al. (6162304) in view of Van Steenburgh Jr. (5195333), as applied to claims 1-14 and 16-19 and 25-26, as described in paragraph 5 above, and further in view of Merchant et al. (5759986).

Weidman and Van Steenburgh fails to teach dichloroethylene. Merchant et al. teach trans-1,2, dichloroethylene and HFC compounds as cleaning agents and refrigerants. It would have been obvious to a person of ordinary skill in the art to modify the method of Weidman to include equivalent refrigerants, as taught by Merchant et al., for use as cleaning agents.

Response to Arguments

8. Applicant's election with traverse of claims 1-20 in Paper No. filed 06/09/2005 is acknowledged. The traversal is on the ground(s) that the examiner has not met the burden that the inventions are distinct. This is not found persuasive because the method can be used with a different apparatus which does not require an expansion

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valve, particularly an solenoid valve can be used. Additionally, the apparatus can be used for other purposes such as biomass extraction.

The requirement is still deemed proper and is therefore made FINAL.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kaiser teaches a method of decontaminating equipment. Maniez et al., Todack, Thomas, Manz, Grant, Corr, Baker, Bertva, and Goddard teach recovery of refrigerant.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharidan Carrillo whose telephone number is 571-272-1297. The examiner can normally be reached on Monday-Friday, 6:00a.m-2:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sharidan Carrillo
Primary Examiner
Art Unit 1746

bsc


SHARIDAN CARRILLO
PRIMARY EXAMINER